IN THE CLAIMS:

Claims 1-17 (Canceled)

Claim 18. (previously presented) A system for electrically isolating a cardiac chamber, comprising:

a resonant circuit having a resonant frequency, said resonant circuit being constructed and dimensioned for introduction into an operative position in a pulmonary vein of a subject proximate an ostium of said pulmonary vein;

a catheter adapted to carry said resonant circuit into said operative position in said pulmonary vein;

a stent dimensioned for circumferential engagement with an inner wall of said pulmonary vein to define a circumferential region of contact between said stent and said pulmonary vein, wherein a principal axis of said stent is substantially aligned coaxially with said pulmonary vein, said resonant circuit being incorporated in said stent; said stent and said resonant circuit forming a body in the shape of a ring, wherein said ring comprises a capacitor core and an inductor coil wound around said capacitor core;

a generator disposed external to said subject for generating an electromagnetic field that has a frequency substantially equal to said resonant frequency of said resonant circuit, said electromagnetic field operatively including said resonant circuit and causing said resonant circuit to re-radiate electromagnetic energy so as to ablate intramural target tissue in said pulmonary vein; and

a sensor system to position and orient said stent in said pulmonary vein proximate the ostium of the pulmonary vein so that when the target tissue of the pulmonary vein has been ablated, a coronary chamber communicating with the pulmonary vein at said ostium will be electrically isolated from the pulmonary vein.

Claim 19. (original) The system according to claim 18, further comprising a sensor for monitoring electrophysiologic cardiac properties of said subject for determining if a predefined end point has been reached.

Claim 20. (previously presented) The system according to claim 19, wherein said predefined end point comprises confirmation of a block of electrical conductivity at said target tissue.

Claim 21. (previously presented) The system according to claim 18, further comprising:

a plurality of capacitors in said resonant circuit; and

a control circuit for automatically selecting one of said capacitors responsively to a frequency of said electromagnetic field so as to conform said resonant frequency of said resonant circuit with said frequency of said electromagnetic field.

Claim 22. (original) The system according to claim 18, wherein said stent is constructed of an alloy having a shape memory.

Claim 23. (original) The system according to claim 18, wherein said stent is constructed of a biodegradable material.

Claim 24. (original) The system according to claim 18, further comprising:

a localizing subsystem for tracking a position and orientation of said catheter, comprising:

a plurality of localizing field generators disposed external to said subject;

a position sensor on said catheter that is responsive to localizing electromagnetic fields produced by said localizing field generators; and

a receiver responsive to an output of said position sensor.

Claim 25. (previously presented) The system according to claim 18 wherein said ring is oriented in a plane extending radially of the axis of the pulmonary vein.

Claim 26 and 27 (cancelled)

Claim 28. (previously presented) The system according to claim 25 wherein said stent is positioned in facing relative to the ostium of the pulmonary vein.

Claim 29. (previously presented) The system according to claim 28 wherein the position of the stent relative to said ostium is such that the target tissue is ablated near said ostium to block electrical conductivity of said tissue and thereby counteract arrhythmia in the heart chamber.

Claim 30. (previously presneted) In a system for electrically isolating a cardiac chamber, the improvement comprising:

a stent for circumferential engagement with an inner wall of a pulmonary vein of a subject proximate an ostium of said pulmonary vein to define a circumferential region of contact between said stent and said pulmonary vein, a principal axis of said stent being oriented substantially coaxial with said pulmonary vein;

a resonant circuit having a resonant frequency incorporated in said stent, said stent and said resonant circuit forming a ring-shaped body comprising a capacitor core and an inductor coil wound around said capacitor core;

a generator for disposal external to said subject and generating an electromagnetic field that has a frequency substantially equal to said resonant frequency; said electromagnetic field operatively including said resonant circuit, whereby said resonant circuit re-radiates electromagnetic energy so as to ablate intramural target tissue in said pulmonary vein; and

a sensor system for engaging and orienting said stent in said pulmonary vein proximate said ostium of said pulmonary vein whereby, when the target tissue in said pulmonary vein has been ablated, a coronary chamber communicating with the pulmonary vein at said ostium will be electrically isolated from the pulmonary vein.

Claim 31 (withdrawn) A method for electrically isolating a cardiac chamber of a patient, comprising the steps of:

a) providing the system of claim 30;

b) engaging and orienting the stent in the pulmonary vein of the patient proximate the ostium of the pulmonary vein; and

c) ablating the target tissue in the pulmonary vein with electromagnetic energy re-radiated from said resonant circuit to electrically isolate the coronary chamber from the pulmonary vein.

Claim 32 (new) The system according to claim 18, wherein the stent and the resonant circuit form the body in the shape of a ring such that a surface of the body has a width that is smaller than the diameter of the body.